

ABSTRACT

The invention is concerned with a process for denitrification of exhaust gasses of primarily lean operated internal combustion engines, including the following process steps:

- placing in the exhaust gas stream of the internal combustion engine a nitrogen oxide storing and catalytically effective solid which is free of alkali earth metals, alkali metals and rare earth, comprising
 - (a) a porous carrier substance and
 - (b) rhodium, which is provided on the porous carrier substance,
- storing the nitrogen oxide during the lean motor operating phase with an air/fuel ratio $\lambda > 1$,
- releasing and catalytically converting the nitrogen oxide during the rich motor operating phase with a air/fuel ratio $\lambda > 1$,

thereby characterized, that the porous carrier substance is comprised of at least 50 wt.% zirconium oxide, titanium oxide, silicon oxide or a zeolite, or a mixture of two or more of these compounds.

(Fig. 1)